

What is claimed is

1. A communication system comprising:

a number of communication circuits disposed to divide a region into communication areas;

wherein each communication circuit communicates using a first polarization in a first portion of its communication area and communicates using a second, different polarization in a second portion of its communication area; and

wherein adjacent portions of communication areas of different communication circuits use the same polarization.

2. The communication system of claim 1 wherein the communication circuits in adjacent communication areas transmit using the same polarization in the adjacent portions of their communication areas.

3. The communication system of claim 1 wherein the first polarization comprises horizontal polarization.

4. The communication system of claim 3 wherein the second polarization comprises vertical polarization.

5. The communication system of claim 1 wherein the first and second portion of each communication area comprises approximately one half of the communication area.

6. The communication system of claim 1 further comprising a number of sectors within each communication area, each sector communicating on a subband of a frequency spectrum.

7. The communication system of claim 6 wherein each sector communicates on a

different subband than the subband being communicated on by an adjacent sector.

8. The communication system of claim 6 wherein the first and second portions of the communication area are divided along a number of boundaries of the sectors.

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9. The communication system of claim 1 wherein each communication circuit transmits signals using a first and second polarization.

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10. The communication system of claim 1 wherein each communication circuit receives signals using a first and second polarization.

11. The communication system of claim 1 wherein each communication circuit transmits and receives signals using a first and second polarization.

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12. A communication system comprising:

a number of communication circuits disposed to form boundaries between communication regions; and

wherein the communication circuits use first and second, different polarizations for signals communicated in adjacent regions.

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13. The communication system of claim 12 wherein the first polarization comprises horizontal polarization.

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14. The communication system of claim 13 wherein the second polarization comprises vertical polarization.

15. The communication system of claim 12 wherein the communication circuits are disposed to form communication areas within the communication regions.

16. The communication system of claim 15 further comprising a number of sectors within each communication area, each sector communicating on a subband of a frequency spectrum.

5 17. The communication system of claim 16 wherein the boundaries between communication regions lay along a number of boundaries of the sectors.

SCW
CI
18. The communication system of claim 12 wherein each communication circuit transmits signals using a first and second polarization.

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19. The communication system of claim 12 wherein each communication circuit receives signals using a first and second polarization.

20. The communication system of claim 12 wherein each communication circuit transmits and receives signals using a first and second polarization.

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21. A method comprising:

dividing a region into a number of communication areas, each communication area including a communication circuit;

communicating using a first polarization in a first portion of each communication area;

communicating using a second polarization in a second portion of each communication area; and

wherein adjacent portions of communication areas of the communication circuits use the same polarization.

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22. The method of claim 21 wherein the communicating includes using the same polarization for signals in adjacent communication areas.

23. The method of claim 21 wherein the first polarization comprises horizontal polarization.

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24. The method of claim 23 wherein the second polarization comprises vertical polarization.

25. The method of claim 21 wherein the first and second portion of each communication area comprises approximately one half of the communication area.

Sub
CV 10

26. The method of claim 21 further comprising dividing each communication area into a number of sectors, each sector communicating on a subband of a frequency spectrum.

27. The method of claim 26 wherein the first and second portions of the communication area are divided along a number of boundaries of the sectors.

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28. The method of claim 21 wherein the communicating consists of transmitting.

29. The method of claim 21 wherein the communicating consists of receiving.

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30. The method of claim 21 wherein the communicating consists of transmitting and receiving.

31. A method comprising:

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forming boundaries between communication regions by disposing a number of communication circuits;
communicating using a first polarization in a first region; and
communicating using a second polarization in an adjacent region to the first region.

32. The method of claim 31 wherein the first polarization comprises a horizontal polarization.

5 33. The method of claim 32 wherein the second polarization comprises a vertical polarization.

34. The method of claim 31 further comprising forming communication areas by disposing the communication circuits within the communication regions.

10 35. The method of claim 34 further comprising dividing each communication area into a number of sectors, each sector communicating on a subband of a frequency spectrum.

36. The method of claim 35 wherein the boundaries between communication regions lay along a number of boundaries of the sectors.

15 37. The method of claim 31 wherein the communicating consists of transmitting.

38. The method of claim 31 wherein the communicating consists of receiving.

20 39. The method of claim 31 wherein the communicating consists of transmitting and receiving.